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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,339	10/20/2003	Daniel Eduardo Groszmann	134074NV (15084US01)	2897
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EXAMINER TANINGCO, ALEXANDER H				
ART UNIT 2882		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/689,339

Applicant(s)

GROSZMANN, DANIEL EDUARDO

Examiner

ALEXANDER H. TANINGCO

Art Unit

2882

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-9 and 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Amendments filed 07/29/2008 have been entered.

Claim Objections

Claim 11 is objected to because of the following informalities:

Claim 11 depends on cancelled claim 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-9, and 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Jensen et al. (US 2003/0099328).

With regards to claim 1, Jensen et al. disclose a method for image reconstruction for images acquired in a non-isocentric path [para 0013], said method comprising: varying a distance between an object and at least one of a detector and a source to form a virtual isocenter [para 0008-0009]; dynamically tracking a position of at least one of said detector and said source during imaging using a tracking system, said tracking system having at least one transmitter and at least one sensor [para 0028];

maintaining an object at said virtual isocenter during imaging of said object [para 0013, 0028 and 0034]; normalizing a magnification change in image data obtained as said virtual isocenter is maintained based upon the tracked position of at least one of said detector and said source [para 0028, 0033-0034]; and reconstructing an image of said object based on said image data and said normalized magnification change [para 0030]

With regards to claim 3, Jensen et al. disclose wherein said varying step further comprises varying said distance between image exposures [para 0014].

With regards to claim 4, Jensen et al. disclose a method comprising a step of determining a distance between said detector and a source using said tracking system [para 0033-0034].

With regards to claim 5, Jensen et al. disclose a method comprising a step of determining a position of at least one of said detector and a source with respect to said object using said tracking system [para 0028].

With regards to claim 6, Jensen et al. disclose a method comprising mounting said detector and a source on a C-arm [para 0027].

With regards to claim 7, Jensen et al. disclose a method comprising moving said C-arm in a non-circular path to move said detector and said source around said object while varying said distance between said detector and said object [para 0013].

With regards to claim 8, Jensen et al. disclose a method wherein said reconstructing step further comprises reconstructing a three-dimensional image of said object based on said image data and said normalized magnification change [para 0030].

With regards to claim 9, Jensen et al. disclose a method for forming a virtual isocenter in an imaging system, said method comprising: determining a distance between an object to be imaged and at least one of a detector and a source using a tracking system, said tracking system having at least one transmitter and at least one sensor [para 0028, 0033-0034]; varying said distance between image exposures [para 0014]; and adjusting image data obtained from said image exposures for a change in magnification between image exposures [0030].

With regards to claim 11, Jensen et al. disclose a method wherein said tracking system comprises an electromagnetic tracking system for determining a position of said detector with respect to said object [para 0042].

With regards to claim 12, Jensen et al. disclose a method comprising reconstructing at least one image of said object from said image data adjusted for said change in magnification [para 0028, 0033-0034].

With regards to claim 13, Jensen et al. disclose a method comprising maintaining a position of said object at a virtual isocenter formed by varying said distance between said object and at least one of said source and said detector [para 0013; Fig. 6-10].

With regards to claim 14, Jensen et al. disclose a method comprising moving a support including said detector and a source in an orbital motion to move said detector and said source around said object while varying said distance between said detector and said object [para 0002].

With regards to claim 15, Jensen et al. disclose a system for processing images obtained using non-isocentric motion, said system comprising: a source **36** for providing an emission used to generate an image of an object **22**; a detector **34** for receiving said emission after said emission has traveled through said object to produce image data; a support **12** for positioning said source and said detector, said support varying at least one of a distance between said detector and said object and a distance between said source and said object when obtaining said image data from said emission (Fig. 1 and Fig. 2); a tracking system **18** for dynamically obtaining position data relating to at least one of said source, said detector **34**, and said object **22**, said tracking system having at least one transmitter and at least one sensor **40**; and an image processor **16** for reconstructing at least one image using said image data and said position data, said image processor compensating for a change in magnification between image data when reconstructing said at least one image, said change in magnification being based on the tracked position of at least one of said source, said detector and said object (Fig. 1).

With regards to claim 16, Jensen et al. disclose wherein said change in magnification is due to varying at least one of a distance between said detector and said object and a distance between said source and said object [para 0013; Fig. 6-10].

With regards to claim 17, Jensen et al. disclose wherein said tracking system comprises an electromagnetic tracking system [para 0042].

With regards to claim 18, Jensen et al. disclose wherein said tracking system comprises an electromagnetic sensor located on said detector and an electromagnetic transmitter located on said object (Fig. 1 note: **40-44**).

With regards to claim 19, Jensen et al. disclose wherein said support comprises a C-arm **12** (Fig. 1).

With regards to claim 20, Jensen et al. disclose a system comprising a positioning device for positioning said object with respect to said support [para 0044].

Examiner notes: positioning an object with respect to a support and positioning support with respect to an object. In either case, it is relative movement between the support and object.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-9, and 11-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER H. TANINGCO whose telephone number is (571)272-8048. The examiner can normally be reached on Mon-Fri 8:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander H Taningco/
Examiner, Art Unit 2882

/Edward J Glick/
Supervisory Patent Examiner, Art Unit 2882